

Abstract of the disclosure

This invention refers to the manufacturing of structural and impervious members by slurry-infiltration in a 3-dimensional mat system, which consists of single layers (2). The single layers are preferably meshes. The structural system is a composite material consisting of a 3-dimensional micro reinforcing and sieving mat system bonded in concrete. The aggregate (1) can be precisely positioned horizontally and vertically in the member by variation of the mesh width of the single layers (2). The sieving effect by the variation of the mesh width in vertical direction guarantees a positioning of aggregate by size. By this effect the load capacity, the stiffness and the crack propagation can be controlled and adjusted precisely.